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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,333	04/11/2001	Shusaku Okamoto	5077-000029	5887

27572 7590 04/01/2004

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EXAMINER

PHILIPPE, GIMS S

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 04/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,333

Applicant(s)

OKAMOTO ET AL.

Examiner

Gims S Philippe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☒ Claim(s) 6-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.5
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This is a first action in response to application no. 09/807,333 filed on April 11 2001 in which claims 1-12 are presented for examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6-7, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto (US Patent no. 6,476,855) in view of Sasaki et al. (US Patent no. 5,729,216).

Regarding claims 6-7, Yamamoto discloses a vehicle monitoring system comprising a plurality of cameras for capturing the surrounding of a vehicle (See fig. 4, cameras 101 and 201, col. 3, lines 7-10), an image processing unit for generating, from the images captured by the plurality of cameras, a synthesized image viewed from a virtual view point (See Yamamoto fig. 4, items 60B and 66, col. 3, lines 21-43).

It is noted that Yamamoto is silent about placing the twin camera in close vicinity to teach other as specified in the claims.

However, Sasaki discloses a plurality of cameras for capturing the surrounding of a vehicle including placing a twin camera in close vicinity to teach other (See Sasaki fig. 6 with twin cameras shown in the rear of the vehicle, and col. 4, lines 62-65).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Yamamoto's camera pair by placing them in close vicinity as shown in Sasaki twin camera system. The motivation for performing such a modification in Yamamoto is to eliminate distortion by lens aberration by the cameras in order to compensate for image signal error in the calculation of objects position as taught by Sasaki (See Sasaki col. 2, lines 42-47).

As per claim 8, most of the limitations of this claim have been noted in the above rejection of claim 6. In addition, Yamamoto further suggests mounting at least one or a plurality of cameras at the vehicle lateral side (See Yamamoto col. 7, lines 11-15).

As per claim 9, most of the limitations of this claim have been noted in the above rejection of claim 6. In addition, the disposition of the cameras in Yamamoto's bumper is considered analogous to disposing the cameras corresponding to illuminating means for irradiating light (See Yamamoto fig. 5, items 101 and 201).

3. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto and Sasaki et al. as applied to claim 6 and 8 above, and further in view of Mazzilli (US Patent no. 6,333,759).

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Regarding claims 10 and 12, most of the limitations of these claims have been noted in the above rejection of claims 6 and 8 above.

It is noted that the combination of Yamamoto and Sasaki is silent about providing a retractably mounted camera so as to be ejected when the vehicle is in use, and as to be housed when the camera is not used.

However, Mazzilli discloses a vehicle monitoring system comprising a camera retractably mounted so as to be ejected when the vehicle is in use, and as to be housed when the camera is not used (See Mazzilli's fig. 3, and col. 2, lines 21-25, lines 64-67 and col. 3, lines 1-4).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying the step of mounting the camera of Yamamoto and Sasaki proposed combination by providing a retractably mounted camera so as to be ejected when the vehicle is in use, and as to be housed when the camera is not used. The motivation for performing such modification in the proposed combination of Yamamoto and Sasaki is to protect the camera when it is not being used.

4. Claims 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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5. Claims 1-5 are allowed.

6. The following is a statement of reasons for the indication of allowable subject matter:

The claims are allowed over the prior art of record since the cited reference fails to particularly teach or suggest *"a twist around an optical axis of a camera being such that when an u-v plane of the visual field range of the at least one camera is projected on a reference plane at a right angle to the optical axis of the at least one camera, the u axis is not parallel to and does not intersect, at a right angle, the intersecting line of the reference plane and the camera installation plane"*.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hirooka et al. (US Patent no. 4566032) teaches visually guided vehicle.

Lee (US Patent no. 5680123) teaches vehicle-monitoring system.

Bos (US Patent no. 6590719) teaches wide angle imaging system.

Schofield et al. (US Patent no. 6611202) teaches vehicle camera display system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S Philippe whose telephone number is (703) 305-1107. The examiner can normally be reached on M-F (9:30-7:00) Second Monday Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris S Kelley can be reached on (703) 305-4780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gims S Philippe
Primary Examiner
Art Unit 2613

GSP

March 30, 2004